

**SUPPLEMENTAL B**  
**PAMNS**  
**PROJECT 554-14-810**  
**VA EASTERN COLORADO HEALTH CARE SYSTEM (ECHCS)**

**SCOPE OF WORK:**

1. The A/E shall provide all technical services including but not limited to architectural and electrical engineering as well as communications, required to correct 10 deficiencies to the ECHCS Public Address/Mass Notification System (PAMNS). Nine deficiencies were identified on the June 2013 - Public Address/Mass Notification System Investigation and Analysis Report for the Denver VA Medical Center. The intent of these corrections is to bring the system up to all applicable Codes and Regulations. A feasibility study will be required for Deficiency Items 1, 7, 8 and 10 to determine whether it is feasible to correct. Study results will be presented to the VA for approval prior to start of design documents. A/E shall consider VA timeline for move to new facility as part of recommendations. Upon completion of study, provide all technical services required for design. As required, equipment/cable layout, electrical power, controls will need to be incorporated in the design. A/E shall provide construction period services and record all changes to electrical/communication wiring diagrams/panels drawings after the project is complete. A brief description of the systems and specific list of deficiencies are provided on Attachment A.

**DESIGN CRITERIA:**

2. A/E shall determine phasing to ensure the least disruptive construction schedule and design the subsequent work accordingly.
3. A/E shall incorporate Infection Control measures during construction as directed by VA in accordance with facility policy and infection control staff.
4. A/E shall incorporate fire/smoke walls in the area of construction into drawings and include notes and specifications for repairs of any penetrations of these barriers.
5. Specifications will be developed using the standard VA specifications. These and other VA design criteria can be obtained at <http://www.cfm.va.gov/TIL/>.
6. The drawings will be produced using industry standard details and VHA CADD Deliverable Guidelines, on a VA provided title block. All drawings will be standard, scaled, e-size (30" x 42") drawings or half size drawings. A/E will be provided with architectural background drawings in AutoCAD 2012. A/E shall confirm in the field, actual as-built conditions.
7. Construction cost estimates are required for each option explored in the study design manual. A general cost estimate is required at the study submission. A detailed construction cost estimate is required at and 95% submission. Deductive alternates may be required in order to meet construction budgeted fund.

**SCHEDULE:**

8. Design time allotted to be as follows:
  - a. Start Feasibility study - At award.
  - b. Present Study report for VA Approval - 3 weeks

- c. Comments by VA back to A/E - 4 weeks.
  - d. Receive 95% working drawings, and specifications and estimate. - 7 weeks.
  - e. Comments by VA back to A/E - 9 weeks.
  - f. Complete construction drawings and specifications - 10 weeks.
9. A/E to provide phasing and coordination of any utility shutdowns.
10. A/E is responsible for survey of existing conditions. Any drawings provided shall be used only as a guide and all information must be confirmed by A/E.
11. All work shall be designed in accordance with the most current edition of the following criteria:
- a. VA PG-18-1, Master Construction Specifications
  - b. VA PG-18-3, VA Design and Construction Procedures
  - c. VA PG-18-4, Standard Details
  - d. VA PG-18-10 VA Design Manuals
  - e. VA PG-18-12 VA Design Guides
  - f. VA PG-18-13, Accessibility, Including ADA and UFAS
  - g. VA PG-18-15, A/E Submission Requirements
  - h. National Fire Protection Association Codes (NFPA)
  - i. VA HVAC Design criteria and Electrical Design Manual
  - j. International Building Code (IBC)
  - k. OSHA Standards
  - l. National Electrical Code (NEC)
  - m. VA Design Guide – Research Laboratories
  - n. All other applicable industry codes and VA requirements

## **SUBMITTALS:**

12. The A/E shall submit the following quantities of review material for each submission:
- a. Include with the Study Report the following items:
    - (1) 1 sets of 8 ½" X 11" Report.
    - (2) Electronic copy of Report.
  - b. Include with 95% submittals the following items:
    - (1) 2 sets of drawings (1 set will be half size drawings).
    - (2) 2 sets of edited construction specifications in MS Word.
    - (3) Two sets of the construction cost estimate.
    - (4) Electronic copy of drawings and specifications.
13. A/E to stamp drawings as to which review (95% or Construction). Also, note on review drawings "NOT FOR CONSTRUCTION."
14. The A/E shall submit the following for the 100% Construction documents:
- a. One (1) CD-ROMs of final construction drawings and specifications. AutoCAD 2012 and .pdf format are required for the drawings. MS Word and PDF are required for specifications.
  - b. One (1) CD-ROMs drawings in one single .pdf file and specifications in single .pdf file.
  - c. Three (2) sets of final construction drawings (One set will be half size drawings).

- d. Three (2) sets of final specifications.
- e. Final construction cost estimate.

#### **CONSTRUCTION PERIOD SERVICES:**

- 15. Prior to the contractor beginning work the A/E will provide a submittal log to the VA indicating all required submittals and the associated specification section.
- 16. Submittal Review: Per section 01 33 23 of the standard VA specifications, the construction contractor will be required to send 3 copies of their submittals directly to the A/E. The A/E is then responsible for routing the submittals to any consultant who is responsible for reviewing the submittal. Within 14 calendar days of receipt of the submittals the A/E will provide reviewed and stamped submittals to the VA COR. On a monthly basis the A/E will also provide an updated submittal log to the VA indicating the status of all submittals required under the contract.
- 17. Construction contractors Request for Information (RFI) and Cost Proposals: The A/E will review the RFIs or the cost proposals that the VA has sent to the A/E. The VA will fax or e-mail the RFI or proposal to the A/E. The A/E is then responsible for routing the documents to their consultants. The A/E will return their response to the VA within 4 calendar days of receipt. The A/E will not inform or send their response to the construction contractor unless so directed by the VA.
- 18. Site Visits: The Communications/Information Technology will provide 1 site visit for final inspection. The Electrical Engineer will provide 2 site visits, one during construction and one for final inspection. The Electrical engineer shall attend the pre-bid walk-thru and provide assistance to review of bid proposals and negotiating points.
- 19. Record Drawings: In addition to the requirements of the Special Provisions, the A/E will provide all record as-built drawings on a CD-rom in uncompressed AutoCAD 2012 format.

#### **CONSTRUCTION DOCUMENT REQUIREMENTS**

- 20. The A/E will responsible for compiling and preparing the digital version of the construction bid document.

The A/E will adhere to the following guidelines:

- a. The drawings must include the VA's construction solicitation number.
- b. The clause and specification book must be in MS Word.
- c. Each page of the clause and specification book must carry the solicitation number in the top margin.
- d. The VA will supply the following items in digital format for the A/E to incorporate into the solicitation document for the A/E's 95% submittal:
  - Section 01 00 00 General Requirements
  - Section 01 33 23 Shop Drawings, Product Data, and Samples
  - Section 01 42 19 Reference Standards
  - Construction Clauses
  - List of Attachments
  - Davis Bacon Wage Determination

## Attachment A – Deficiency Items

The following are systems descriptions and identified deficiency items on the 2013 PAMNS Investigation and Analysis report

### **A. PAMN System**

**Description:** The Campus PAMNS was installed by Interwest Sound Communications which utilizes multiple components from different manufactures. This system was installed in 1995 and is beyond its recommended lifecycle however is functioning as originally designed. The head unit amplifier is operating at full capacity and parts for this portion of the system are becoming obsolete.

A secondary system of Notification which utilizes the Fire Alarm Speaker system is in place and has been utilized in the past for mass notification. The fire alarm speaker system appears to have full coverage of the VA campus buildings. No prerecorded messages exist and the operator controls did not appear to be in a convenient location (subject to the authority having jurisdiction) per 2012 NFPA 101.9.6.6.

#### **Deficiency Items:**

Item 1 – System needs to be relocated from normal branch to the Life Safety Branch of emergency power NFPA 70-517.32.D & VA-EDM 4.6.1.1\*\* (The Control Equipment is located in **room BD103G**)

Item 2 - Building 6 & 8 speakers and amplifiers are to be made operational. Building 18 needs speakers or amplifier added.

Item 3 - Building 21 needs speaker coverage on the 1st and 2nd floor

Item 4 - Complete PA coverage in Building 7 - 1st floor, Building 19 – 2nd floor, & Building 24 - 1st floor.

Item 5 - Provide a UPS for the amplifier in Building C & Building 7. IAW 27 51 16 D.5.d & PSDM 9.3.2

Item 6 - “PA Identified Only” equipment racks campus wide need to be bonded/grounded IAW VA-EDM 8.3.4, VA 27 05 26 & ANSI/TIA/EIA-607.

### **B. Nurse Call/Code Blue System**

**System Description:** The Nurse Call system is located within the main Hospital (Building 1) and CLC (Building 38) of the campus. The system is the Zettler Sentinel 500 that is still current in the industry and is maintainable. Touch Screen monitors with voice communication located at the nurse’s stations. Code Blue calls are locally annunciated and routed automatically through the paging system. Master stations are located at the Police Office and the Switchboard/Fire Control Center Office.

Non-patient care areas and office/exam areas (where no invasive procedures are performed) do not have nurse call devices.

The system appears to be tested regularly. A system for logging nurse calls is in place, but is not well-maintained.

#### **Deficiency Item:**

Item 7 – Building 1: Connect Critical Care power to the CORE Paging system at the main telecom room (Room BD103 G) and at the 10th floor antenna locations. NFPA 70 517-33. \*\*

### **C. Panic/Duress Alarm System**

**Description:** The campus is served by the Simplex Grinnell Panic/Duress system. Panic/Alarm has coverage throughout the facility and in most areas defined by the Physical Security Manual Appendix B. The system reports to the Police Office and the Switchboard/Fire Command Center.

**Deficiency Items:**

Item 8 – Move system from the normal power circuit to the Critical Care branch of emergency power. NFPA 70 517.33 \*\* (The Control Equipment is located in **room BD103H**)

Item 9 – Reprogram the phone switch to have subsequent emergency calls indicate the location of the call, in order to avoid a conference call situation \*\*

**D. Additional Items – not included on PAMNS Investigation and Analysis Report**

**Deficiency Item:**

Item 10 – Move Fire Alarm panels from the normal power circuit to the Critical branch of emergency power \*\*

Note: \*\* Items to be included on Feasibility Study